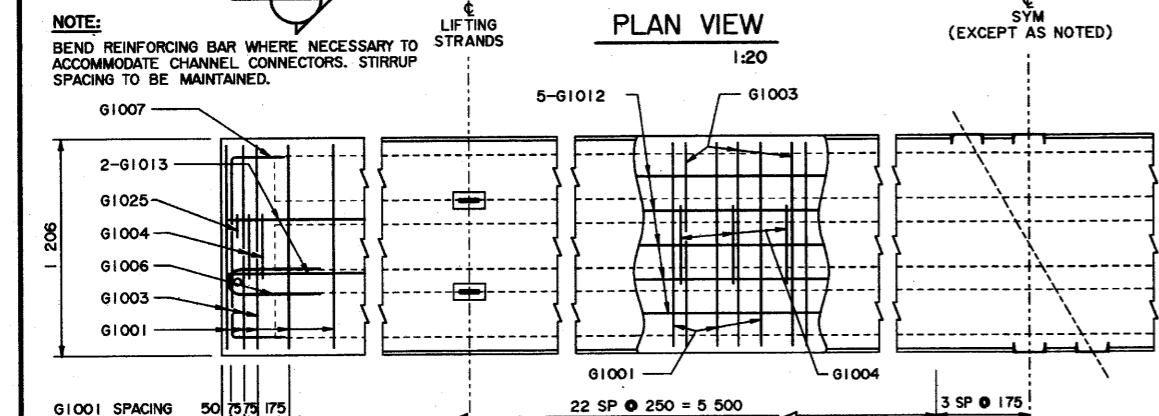
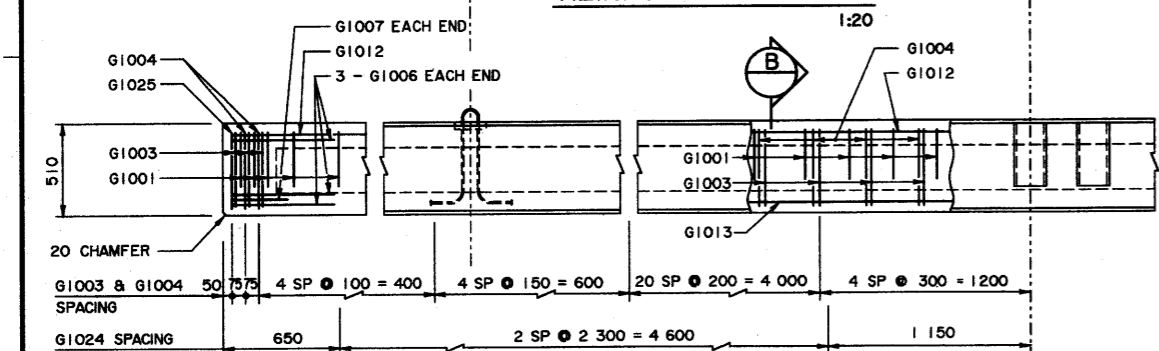


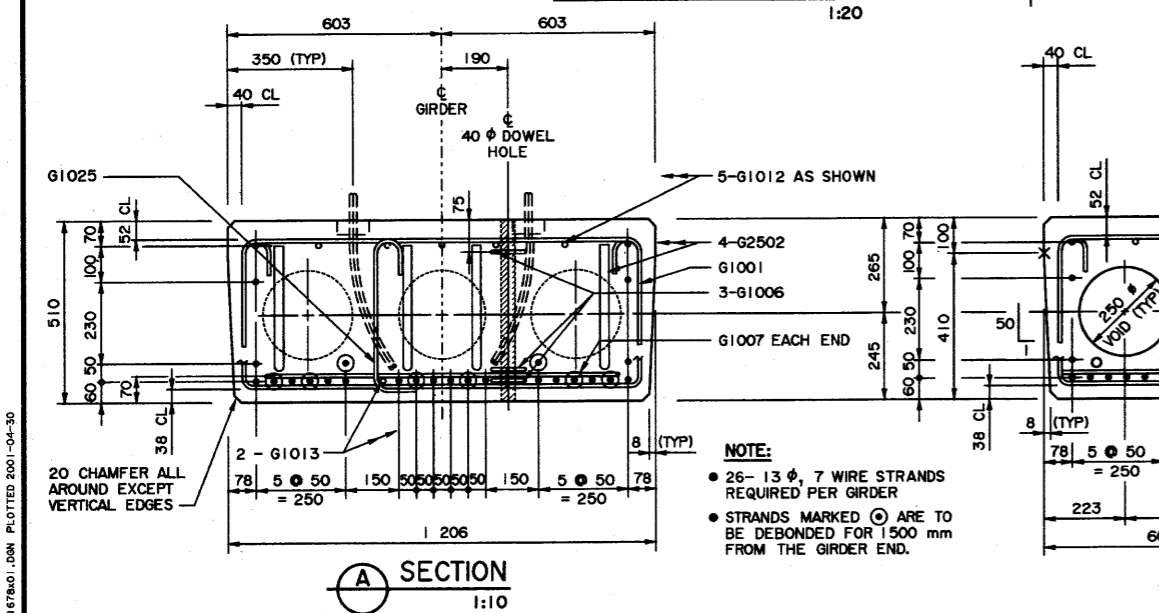
**PLAN VIEW**  
1:20



**REINFORCEMENT PLAN**  
1:20



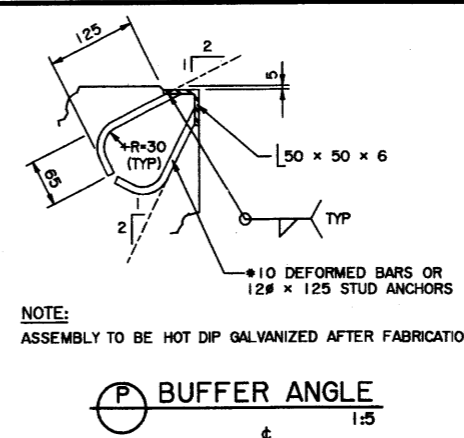
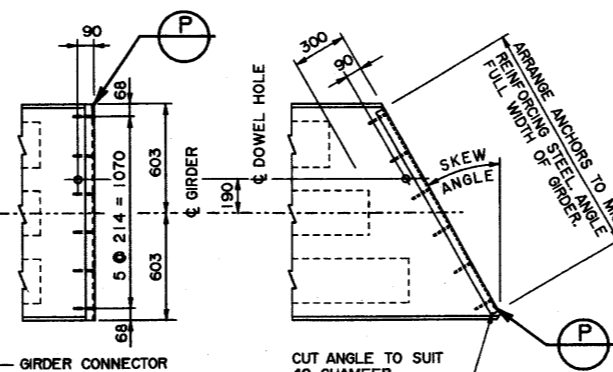
**ELEVATION**  
1:20



**SECTION A**  
1:10

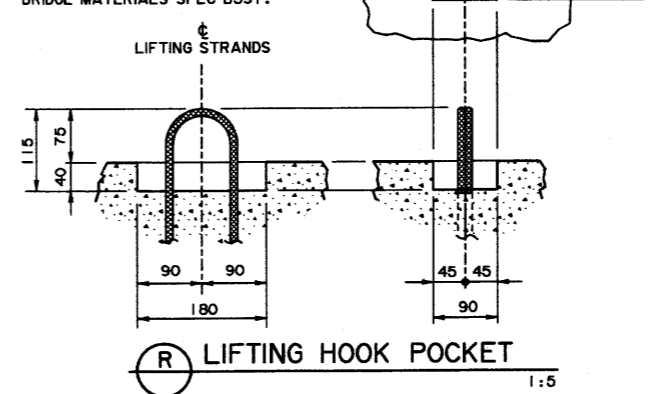
**SECTION B**  
1:10

**NOTE:**  
FOR SKEWED END REINFORCING BAR DETAILS SEE DWG S-1679-01

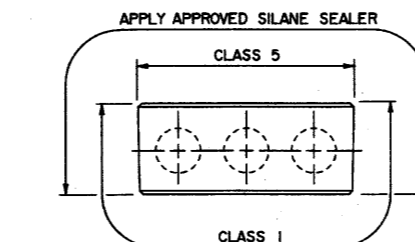


**P BUFFER ANGLE**  
1:5

**NOTE:**  
• 2 - 13  $\phi$ , 7 WIRE STRANDS, 750 MIN EMBEDMENT EACH END.  
• AFTER GIRDERS ARE ERECTED, LIFTING STRANDS ARE TO BE CUT-OFF FLUSH WITH BOTTOM OF POCKET. POCKET TO BE FILLED WITH AN LTH MATERIAL APPROVED IN ACCORDANCE WITH BRIDGE MATERIALS SPEC B391.



**R LIFTING HOOK POCKET**  
1:5



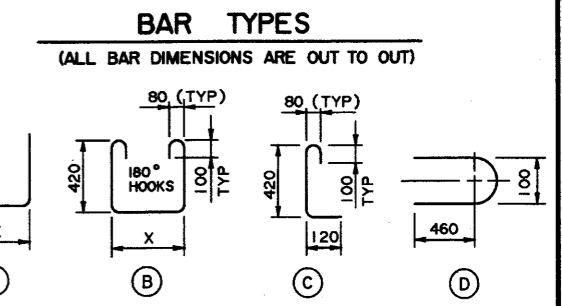
**GIRDER FINISHES**  
(BY FABRICATOR)  
1:20

CAST SERIAL NUMBER INTO END OF UNIT  
BEARING AREAS TO BE SMOOTH AND TRUE  
FABRICATOR'S NAME, YEAR OF MANUFACTURE, SERIAL NUMBER OF UNIT AND CS 750 TO BE CAST INTO BOTTOM OF SLAB IN 50 mm LETTERS.

**BAR LIST: FOR SQUARE GIRDER**

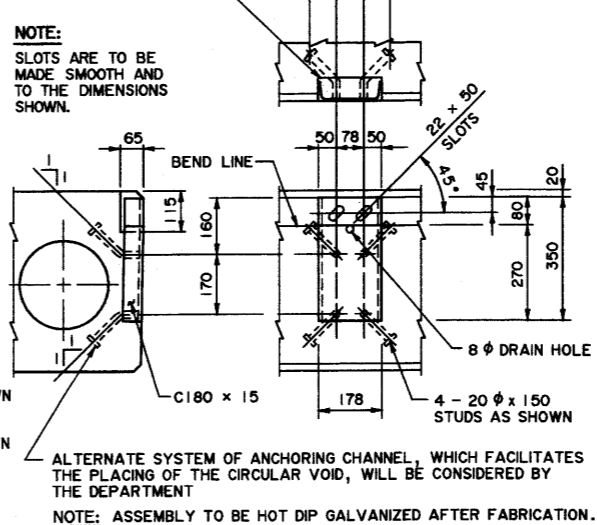
MARK	SIZE	NO	TYPE	X	Y	LENGTH	MASS
G1001	10	57	A	1 125	300	1 725	77
G1003	10	69	B	1 125		2 220	120
G1004	10	67	B	420		1 520	80
G1006	10	6	D			1 080	5
G1007	10	2	A	1 000	300	1 600	3
G1012	10	5	STR			12 700	50
G1013	10	2	STR			12 600	20
G1024	10	6	STR			1 100	5
G1025	10	2	C			670	1
G2502	25	4	A	12 650	350	13 350	210

TOTAL kg : 571



**GENERAL NOTES**

- ALL DRAWING REFERENCES ARE TO CURRENT DRAWINGS.
- DESIGN**
- CAN/CSA-S6-88 SPECIFICATIONS EXCEPT AS MODIFIED BELOW:
  - ALLOWABLE TENSION AT MIDSPAN IS 67% OF MODULUS OF RUPTURE WITH 50 mm WEARING SURFACE (80% WITH 90 mm WEARING SURFACE).
  - NO TENSION ALLOWED IN DECK SURFACE.
- **LOADING:**
  - LIVE LOAD - CAN/CSA-S6-88; CS-750 ONE WHEEL LINE PER GIRDER
  - DEAD LOAD - GIRDER = 0.93 t/m
  - WEARING SURFACE = 0.24 t/m
- MATERIALS**
- CONCRETE SHALL CONTAIN SILICA FUME AND BE MADE OF LIGHTWEIGHT COARSE AGGREGATE AND NATURAL SAND FINES. UNIT WEIGHT OF SEMI-LIGHTWEIGHT CONCRETE SHALL BE 1920 kg/m<sup>3</sup>.
- 28 DAY CONCRETE STRENGTH - 45 MPa
- RELEASE STRENGTH - 28 MPa
- PRESTRESSING STEEL SHALL BE 13  $\phi$ , 7 WIRE LOW RELAXATION STRAND (f<sub>pu</sub> = 1860 MPa).
- REINFORCING STEEL SHALL BE GRADE 400W (YIELD STRENGTH OF GRADE 300 USED IN DESIGN TO ALLOW TACK WELDING OF SHEAR REINFORCEMENT).
- FABRICATION**
- GIRDERS SHALL CONFORM TO THE CURRENT REQUIREMENTS OF THE SPECIFICATIONS FOR BRIDGE CONSTRUCTION SECTION 7 - PRECAST CONCRETE UNITS.
- FORCE IN PRESTRESSING STEEL:
  - INITIAL TENSIONING LOAD = 129 kN/STRAND
  - DESIGN LOAD AFTER LOSSES = 103 kN/STRAND
- ALL GALVANIZING SHALL CONFORM TO ASTM SPEC A123.
- BEND OR SHIFT REINFORCING WHERE REQUIRED TO CLEAR GIRDER CONNECTORS AND LIFTING HOOK ASSEMBLIES. STIRRUP SPACING IS TO BE MAINTAINED. FOR CONNECTOR AND LIFTING HOOK LOCATIONS SEE DWG S-1679-01
- ERECTION**
- ANY FREE SPACE BETWEEN CONNECTORS SHALL BE FILLED WITH DROP-IN WASHERS.
- CALCULATED MASS OF ONE GIRDER IS 12.10 t.
- WORK THESE DRAWINGS TOGETHER : S-1678-01 AND S-1679-01



**S GIRDER CONNECTORS**  
1:10

REV	DATE	REVISIONS	BY

DESIGNER: R. J. ... CHECKER: G. L. ... DATE: July 10/01

RECOMMENDED DIRECTOR BRIDGE ENGINEERING

APPROVED EXECUTIVE DIRECTOR TECHNICAL STANDARDS BRANCH

**Albarta** TRANSPORTATION

**PRESTRESSED CONCRETE**  
12.80 m TYPE SC-510  
INTERIOR GIRDER

DATE: 2001-04-30 SHEET: 1 of 2 DRAWING: S-1678-01

S-1678-01.DWG PLOTTED 2001-04-30